

What is claimed is:

1. A microfluidic arrangement, for metering one or more first metered amounts of liquid (A) and for separating the latter from a second amount of liquid (B), comprising:

- a first channel and one or more second channels;
- the first channel has one inlet and one outlet;
- in the area of the outlet, the arrangement has a capillarity, which is greater than or equal to the capillarity in the area of the inlet;

- the one or more second channels branch off from the first channel at one or more branch points;

- the one or more second channels have a greater capillarity than the first channel at the branch points; and

- the one or more second channels have a predetermined volume.

2. The microfluidic arrangement as claimed in claim 1, wherein the greater capillarity of the one or more second channels at the branch points compared to the capillarity of the first channel is set by the suddenly changing geometrical properties at the transitions from the first channel to the one or more second channels.

3. The microfluidic arrangement as claimed in claim 1, wherein the greater capillarity of the one or more second channels at the branch points compared to the capillarity of the first channel is set by the suddenly changing surface properties of the walls at the transitions from the first channel to the one or more second channels.

4. The microfluidic arrangement as claimed in claim 1, wherein the one or more second channels begin at the branch points and end at a means for stopping a liquid flow.

5. The microfluidic arrangement as claimed in claim 1, wherein an inlet reservoir is connected upstream of the inlet of the first channel.

6. The microfluidic arrangement as claimed in claim 5, wherein the inlet reservoir has a capillarity which is less than or equal to the first channel in the area of the inlet.

7. The microfluidic arrangement as claimed in claim 1, wherein an outlet reservoir is connected downstream of the outlet of the first channel.

8. The microfluidic arrangement as claimed in claim 7, wherein the outlet reservoir has a capillarity greater than or equal to the first channel in the area of the outlet.

9. The microfluidic arrangement as claimed in claim 1, wherein the first channel between the inlet and the outlet is divided into sections and thus a first channel system is formed.

10. The microfluidic arrangement as claimed in claim 9, wherein the sections of the first channel have a capillarity, which increases, from the inlet to the outlet.

11. The microfluidic arrangement as claimed in claim 1, wherein the one or more second channels are divided into sections and thus form a second channel system.

12. The microfluidic arrangement as claimed in claim 11, wherein the capillarity of the sections of the one or more second channels remains the same or increases from the branch points as far as the stopping means.

13. The microfluidic arrangement as claimed in claim 1, wherein one third channel at a time is connected to the stopping means.

14. The microfluidic arrangement as claimed in claim 13, wherein the capillarity of the third channels is greater than or equal to that of the one or more second channels.

15. The microfluidic arrangement as claimed in claim 1, wherein the stopping means are capillary stops.

16. The microfluidic arrangement as claimed in claim 1, wherein the stopping means are microvalves.

17. The microfluidic arrangement as claimed in claim 1, wherein the third channels each have one second outlet.

18. The microfluidic arrangement as claimed in claim 17, wherein the second outlets each have one microvalve or one capillary stop.

19. The microfluidic arrangement as claimed in claim 1, wherein individual or all sections of the first channel system, of the second channel systems, of the third channel systems and/or the outlet reservoir are made meander-shaped.

20. The microfluidic arrangement as claimed in claim 1, wherein individual or all sections of the first channel, of the one or more second channels and/or of the third channels are made as cavities.

21. The microfluidic arrangement as claimed in claim 1, wherein there is an absorbent material in individual or all sections of the first channel, of the one or more second

channels, and/or of the third channel systems and/or the outlet reservoir.

22. The microfluidic arrangement as claimed in claim 1, wherein the first channel in the area of the branch point is connected to an aeration channel.

23. A carrier, especially a sample carrier, wherein the carrier has a microfluidic arrangement as claimed in claim 1.

24. A process for metering one or more first metered amounts of liquid (A) and for separating the latter from a second amount of liquid (B), comprising the following steps:

the liquid penetrates via the inlet into the first channel;

the liquid is transported as far as the first of the branch points;

from the first of the branch points a first portion of the liquid is transported into the first of the one or more second channels until it is completely filled with first amounts of liquid (A);

from the first of the branch points optionally a second portion of the liquid is transported to further branch points;

optionally portions of the second part of the liquid are transported from the other branch points into other one or more second channels until they are completely filled with additional first amounts of liquid (A);

the portion of liquid remaining in the first channel after the last of the branch points is separated as a second liquid amount (B) by a gaseous phase from the first amounts of liquid and transported to the outlet where it emerges from the first channel.